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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/791,189

03/01/2004

Charles John Call

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08/06/2008

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EXAMINER

RAMILLANO, LORE JANET

ART UNIT

PAPER NUMBER

1797

MAIL DATE

DELIVERY MODE

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PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/791,189	<b>Applicant(s)</b> CALL ET AL.	
	<b>Examiner</b> LORE RAMILLANO	<b>Art Unit</b> 1797	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 18 April 2008.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1,3-7,21-24,29-38 and 43-48 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 3-6,22,23,29-32,34-38 and 43-46 is/are allowed.
- 6) ☒ Claim(s) 1,7,21,24,33,47 and 48 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 3/1/04 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)          | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

## **DETAILED ACTION**

### ***Status of Claims***

1. In applicant's reply filed on 4/18/08, applicant added new claim 48. Claims 2, 8-20, 25-28, and 39-42 are cancelled. Claims 1, 3-7, 21-24, 29-38, and 43-48 are pending and under examination.

### ***Response to Amendment***

#### ***Prior art rejections***

2. The rejection over the prior art is maintained. In light of applicant's new claim, a new rejection follows.

#### ***Claim Rejections - 35 USC § 102***

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. **Claims 1, 7, 21, 24, 33, and 47** are rejected under 35 U.S.C. 102(b) as being anticipated by Danylewych-May et al. ("Danylewych-May," US 5859375).

Danylewych-May discloses an air sensor device configured to collect airborne particles and to evaluate collected airborne particles in order to determine if the collected airborne particles indicate the presence of a biological threat, comprising: a regenerable solid collection surface for supporting a spot of immobilized airborne particles, the regenerable solid collection surface being specifically configured to remove particles from an air stream by impaction of the air stream against the

regenerable solid collection surface; means for regenerating the regenerable solid collection surface by removing particles from the regenerable solid collection surface, such that once regenerated, the regenerable collection solid surface can collect additional particles from the air, such that particles collected before regenerating the regenerable solid collection surface are substantially no longer present to contaminate particles collected after regeneration; and means for analyzing (i.e. detects biological signature such as mass spectrum, col. 1, lines 6-12) the spot of immobilized airborne particles while the particles remain disposed on the regenerable solid collection surface to determine if the spot of immobilized airborne particles represents a biological threat. (i.e. col. 5, line 35 to col. 6, line 55).

Danylewych-May further discloses that the device further comprises a liquid coating applicator configured to moisten the regenerable solid collection surface (i.e. col. 6, lines 1-7).

Danylewych-May teaches a method comprising: depositing airborne particles on a regenerable collection surface, measuring a biological signature present in the particles comprising the spot, determining a concentration of the immobilized airborne biological particles, and regenerating the regenerable collection surface by removing particles from the regenerable collection surface (i.e. col. 5, line 35 to col. 6, line 55).

Danylewych-May further teaches a method of detecting airborne biological particles, the method comprising the steps of: (a) depositing airborne particles on a regenerable solid collection surface provided for supporting a spot of immobilized airborne particles, such that the particles deposited on the regenerable solid collection

surface form a spot; (b) subsequently, measuring a biological signature present in the particles comprising the spot, using a detector configured for sensing the biological signature of the particles, while the particles remain deposited on the regenerable solid collection surface; (c) determining a concentration of the immobilized airborne biological particles from the measurement of the biological signature in order to determine if the biological particles should be considered to represent a potential biological threat; and (d) regenerating the regenerable solid collection surface by removing particles from the regenerable solid collection surface after step (c), so that once thus regenerated, the regenerable solid collection surface can collect additional particles from the air, such that particles collected before regeneration of the regenerable surface are substantially no longer present to contaminate particles collected after the regeneration. (i.e. col. 1, 6-12; col. 5, line 35 to col. 6, line 55).

***Claim Rejections - 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.

4. Considering objective evidence present in the application indicating obviousness or nonobviousness.
7. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).
8. **Claim 48** is rejected under 35 U.S.C. 103(a) as being unpatentable over Hemeon (US 3572128).

Hemeon discloses an air sensor device (i.e. figs. 1-4) comprising:

a regenerable solid collection surface for supporting a spot of immobilized airborne particles, the regenerable solid collection surface being specifically configured to remove particles from an air stream by impaction of the air stream against the regenerable solid collection surface (i.e. 24, fig. 3, col. 3, lines 13-58);

means for regenerating the regenerable solid collection surface without removing the regenerable solid collection surface from the air sensor device, such that once regenerated, the regenerable collection solid surface can collect additional particles from the air, such that particles collected before regenerating the regenerable solid collection surface are substantially no longer present to contaminate particles collected after regeneration (i.e. 24, fig. 3, col. 3, lines 13-58); and

means for analyzing the spot of immobilized airborne particles while the particles remain disposed on the regenerable solid collection surface without removing the regenerable solid collection surface from the air sensor device (i.e. col. 2, line 59 to col. 3, line 2), to determine if the spot of immobilized airborne particles represents a biological threat.

While Hemeon discloses a means for regenerating another regenerable solid collection surface by removing particles from this regenerable solid collection surface in col. 1, lines 65-69 and col. 2, lines 13-30, Hemeon does not specifically disclose utilizing wipers for the filter paper (24, figs. 3-4) to remove particles from the surface of the filter paper. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to modify Hemeon's invention by incorporating additional wipers to remove particles from the surface of the filter paper because it would be more time- and cost-efficient to continuously clean and re-use the same filter paper.

***Allowable Subject Matter***

9. Claims 3-6, 22-23, 29-32, 34-38, and 43-46 allowed.

The following is a statement of reasons for the indication of allowable subject matter: the prior art of record (Danylewych-May) fails to teach or fairly suggest comprising a spotting nozzle; the regenerable solid collection surface is part of an impaction plate; a fluorescence detector; a dichroic mirror; an excitation filter or emission filter; a brush, pad, wheel, nozzle, blade, means for electrostatically charging, or means for directing energy as a means for regenerating the regenerable solid

collection surface, a processor, and an alarm in combination with the remaining features and elements of the claimed invention.

### ***Response to Arguments***

10. Applicant's arguments filed 4/18/08 have been fully considered but they are not persuasive.

In response to applicant's argument that the cited art (Danylewych-May) does not analyze the sample while the immobilized particles remain disposed on the surface, examiner disagrees. Danylewych-May expressly discloses that the analysis of her invention is conducted by various analytical means, such as mass spectrometry in col. 1, lines 6-12, which was previously cited in the Office action filed on 3/18/08. Based on this disclosure and the disclosure cited in col. 6, lines 22-43 and col. 9, lines 2-9 of Danylewych-May, it appears that Danylewych-May anticipates using a detector (i.e. chemiluminescent detectors, mass spectrometer) that is capable of analyzing a spot of immobilized airborne particles while the particles remain disposed on a surface.

### ***Conclusion***

11. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not



mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to LORE RAMILLANO whose telephone number is (571) 272-7420. The examiner can normally be reached on Mon. to Fri.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jill Warden can be reached on (571) 272-1267. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Jill Warden/  
Supervisory Patent Examiner, Art Unit 1797

Lore Ramillano  
Examiner  
Art Unit 1797